

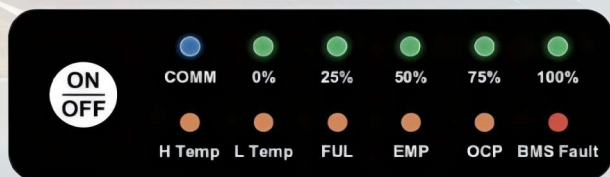


Product Application





- Real-time monitoring
- Connect via Bluetooth
- Check battery status
- Cold protection



LiFePO4 12V 300/314AH FEATURES

BMS Protection

Overcharge/Over-discharge Protection, Charge/Discharge Over-current Protection, Short-Circuit Protection, Battery Voltage Self-Balancing, High-Temperature Discharge Cut-off.

Long Lifespan

Can be cycled up to 6000 times, with a lifespan of up to 20 years.

More Secure and Efficient

Each battery has two pairs terminals for positive and negative poles, allow more connections to improve the conductive efficiency and safety.

Smart Monitoring

Easily monitor your battery's status through the mobile app, which supports both Bluetooth and WiFi connections. Stay informed on your battery's health and performance in real-time.

Cold protection

Charging stops below 19.4°F (-7°C) and resumes above 32°F (0°C); discharging stops below -4°F (-20°C) to prevent damage, ensuring stability in harsh conditions.

Capacity Expansion

Up to 4 units can be connected in parallel, with an expanded capacity of up to 15.4/16.1 kWh



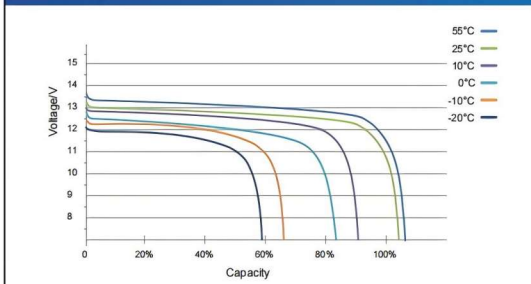
Mechanical Specication

Length	16.30in / 414mm
Width	8.46in / 215mm
Height	10.24in / 260mm
Weight	60.41lbs / 27.4kg
Terminals	M8 insert

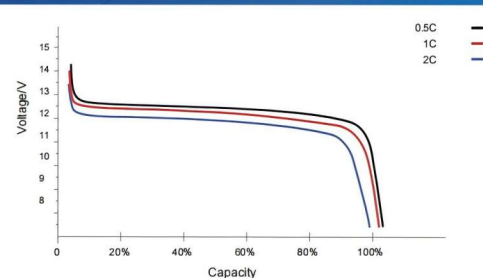
Materials

Case and Cover	PLASTIC
Color	BLACK

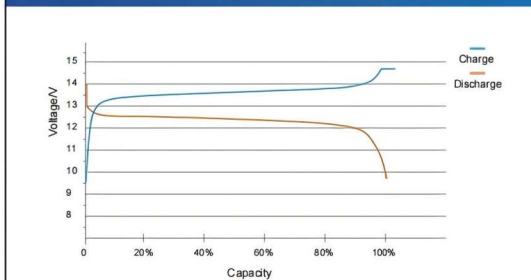
Discharge Characteristics At Various Temperatures



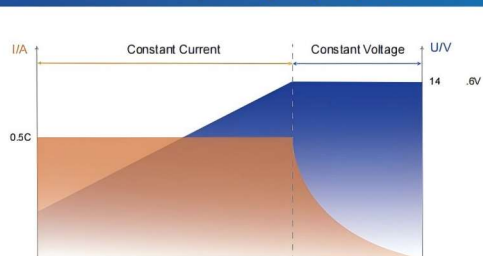
Discharge Characteristics At Various Rates



Charge & Discharge Voltage Characteristics



LiFePO4 Battery Charging Logic @0.5C



PLEASENOTE

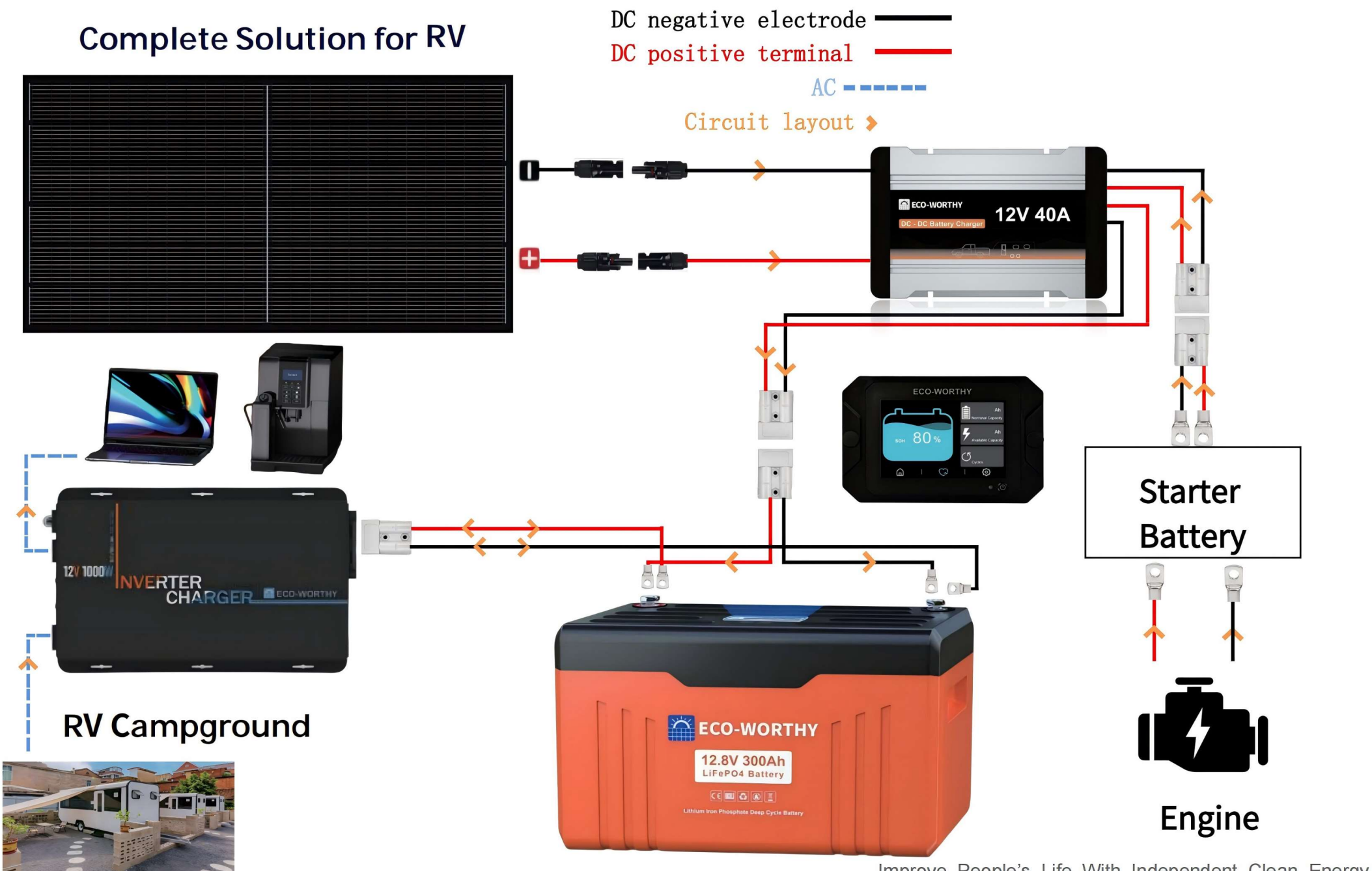
1.Lithium batteries ship under Class 9 Dangerous Goods PI 965 Section IA,Please contact your carrier company to determine their requirements for shipping. MSDS Sheets are available upon request.

2.Float charging is not applicable to lithium iron phosphate batteries, long-term float charging will accelerate battery aging or damage. If you have to set the float voltage for MPPT/PWM charge controller in solar system, we suggest to set it to (12V Battery)13.2V-13.6V, (24V Battery)26.4V-27.2V, (36V Battery)39.6V-40.8V, (48V Battery)52.8V-54.4V.

LithiumIronPhosphate(LiFePO4)

Nominal Voltage	12.8V
Rated Capacity	300/314AH
Charge Method	CC/CV
Charge Voltage	14.6V
Bulk/Absorption Voltage	14.6V
BMS Balancing Voltage	Any cell voltage $\geq 3.45V$ Max Voltage difference between cells $>30mV$ In Charging
Equalize Voltage	Not applicable
Float Voltage*	Not applicable
Temperature Compensation	No/Disable
Charge Cut-off Voltage	14.6V
Discharge Cut-off Voltage	9.2V
Recommended Charge Current	150A
Recommended Discharge Current	150A
Maximum Continuous Charge Current	200A
Maximum Continuous Discharge Current	200A
Peak Current	200A/2s
WiFi	NO
Bluetooth	Yes
Communication	Bluetooth
Self Heating	No
Protection Rating	IP55
BMS Protection	- Over and Low voltage - Charge and Discharge Over current - Short circuit - High and Low temperature
Internal Resistance	$\leq 1.204m\Omega$
BMS Leakage Current	$\leq 10mA$
Charge Temperature Range	32°F (0°C) to 131°F (55°C)
Discharge Temperature Range	-4°F (-20°C) to 131°F (55°C)
Storage Temperature 1 week	-4°F (-20°C) to 149°F (65°C)
Storage Temperature 1 month	-4°F (-20°C) to 113°F (40°C)
Storage Temperature 1 year	-4°F (-20°C) to 77°F (25°C)
Humidity Operating:	5% to 90 % RH
Humidity Storage:	35% to 85% RH
Certifications: MSDS; UN38.3; CE; PSE	
Cycle Life	6000 cycles
Max connected in Parallel 4 units	Max connected in Series 4 units

Complete Solution for RV



ECO-WORTHY Shield Series

SHIELD



■ Smart Battery Monitoring

ECO-WORTHY Shield Series battery comes with an intelligent battery monitoring system, featuring an LED display and status indicators that allow you to track charging status and battery performance in real-time. If any issues arise, the built-in buzzer alerts you, and you can easily turn it off through the app for added convenience and safety.

■ Bluetooth APP Control

The 12V 100Ah lithium trolling motor battery with built-in Bluetooth lets you monitor battery voltage, current, capacity, SOC, runtime, cell voltages/consistency, etc., within 98 feet via the smart ECO-WORTHY APP.

■ Lightweight and Versatile

Weighs only one-third as much as lead-acid batteries, amped outdoors lithium battery is perfect for RV and off-grid solar applications. In an RV, it provides reliable, lightweight power for appliances, while in a solar system, its large capacity ensures efficient, consistent power for your home.

■ Advanced Protection Features

Features a robust BMS that guards against overcharging, short circuits, and overheating. Meets US safety standards, so you can trust it for family trips or home backup power.

Shield Series

Model	100AH 12V (Shield Series)	314AH 12V (Shield Series)
Cell Chemistry	Lithium Iron Phosphate (LiFePO4)	
Nominal Voltage	12.8V	
Rated Capacity	100Ah	314Ah
Charge Method	CC/CV	
Charge Voltage	14.6V	
Bulk/Absorption Voltage	14.6V	
BMS Balancing Voltage	Any cell voltage >3.45V Max Voltage difference between cells >30mV In Charging	
Equalize Voltage	Not applicable	
Float Voltage	Not applicable	
Temperature Compensation	No/Disable	
Charge Cut-off Voltage	14.6V	
Discharge Cut-off Voltage	10V	
Recommended Charge Current	50A	150A
Recommended Discharge Current	50A	150A
Maximum Continuous Charge Current	100A	200A
Maximum Continuous Discharge Current	100A	200A
Peak Current	120A (10s)	240A (10s)
WiFi	No	
Bluetooth	Yes	IP65
Communication	No	
Self Heating	Yes	
Protection Rating	IP65	
BMS Protection	Over and Low voltage Charge and Discharge Over current Short circuit High and Low temperature	
Internal Resistance	≤10mΩ	
BMS Leakage Current	≤10mA	
Charge Temperature Range	-4°F(-20°C) to 131°F(55°C)	
Discharge Temperature Range	-4°F(-20°C) to 131°F(55°C)	
Storage Temperature 1 week	-4°F(-20°C) to 149°F(65°C)	
Storage Temperature 1 month	-4°F(-20°C) to 113°F(40°C)	
Storage Temperature 1 year	-4°F(-20°C) to 77°F(25°C)	
Humidity Operating	5% to 90% RH	
Humidity Storage	35% to 85%RH	
Certifications	MSDS; UN38.3; CE; PSE	
Cycle Life	4000 cycles	6000 cycles
Scalability	Max.4 pcs in series Max.4 pcs in parallel	
Mechanical		
Length	11.81in/300mm	16.30in/414mm
Width	6.89in/175mm	8.46in/215mm
Height	8.66in/220mm	10.24in/260mm
Weight	34.61lbs/15.7kg	60.41lbs/27.4kg
Terminals	M8 insert	M8 insert